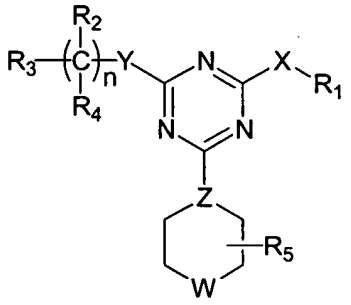
AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application.

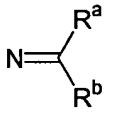
1-46. (Canceled)

47. (Currently amended) A method for treating an interleukin-12 overproduction-related disorder, wherein the disorder is rheumatoid arthritis, sepsis, Crohn's disease, multiple sclerosis, psoriasis, or insulin-dependent diabetes mellitus, comprising administering to a subject in need thereof the compound of formula (I):



(I),

wherein

R_1 is  , aryl, or heteroaryl;

each of R_2, R_4, and R_5, independently, is R^c, halogen, nitro, nitroso, cyano, azide, isothionitro, SR^c, or OR^c;

R_3 is R^c, alkenyl, alkynyl, aryl, heteroaryl, cyclyl, heterocyclyl, OR^c, $OC(O)R^c$, SO_2R^c, $S(O_2)R^c$, $S(O_2)NR^cR^d$, SR^c, NR^cR^d, NR^cCOR^d, $NR^cC(O)OR^d$, $NR^cC(O)NR^cR^d$, $NR^cSO_2R^d$, COR^c, $C(O)OR^c$, or $C(O)NR^cR^d$;

n is 0, 1, 2, 3, 4, 5, 6, or 7;

X is O, S, S(O), $S(O_2)$, or NR^c;

Y is a covalent bond, CH_2, C(O), C=N-R^c, C=N-OR^c, C=N-SR^c, O, S, S(O), S(O_2), or NR^c;

Z is N or CH; and

W is O, S, S(O), S(O_2), NR^c, or $NC(O)R^c$;

in which each of R^a and R^b, independently, is H, alkyl, aryl, heteroaryl; and each of R^c and R^d, independently, is H, alkyl, or alkylcarbonyl; or a pharmaceutically acceptable salt thereof.

48. (Canceled)

49. (Previously presented) The method of claim 47, wherein the disorder is rheumatoid arthritis.

50. (Previously presented) The method of claim 47, wherein the disorder is Crohn's disease.

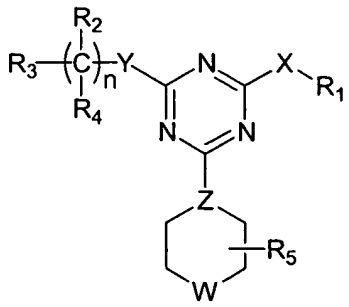
51. (Previously presented) The method of claim 47, wherein the disorder is multiple sclerosis.

52. (Previously presented) The method of claim 47, wherein the disorder is psoriasis.

53. (Previously presented) The method of claim 47, wherein the disorder is diabetes mellitus.

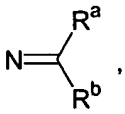
54. (Previously presented) The method of claim 47, wherein the disorder is sepsis.

55. (Currently amended) A pharmaceutical composition comprising the compound of formula (I):



(I),

wherein

R_1 is  , aryl, or heteroaryl;

each of R_2, R_4, and R_5, independently, is R^c, halogen, nitro, nitroso, cyano, azide, isothionitro, SR^c, or OR^c;

R_3 is R^c, alkenyl, alkynyl, aryl, heteroaryl, cyclyl, heterocyclyl, OR^c, $OC(O)R^c$, SO_2R^c, $S(O_2)R^c$, $S(O_2)NR^cR^d$, SR^c, NR^cR^d, NR^cCOR^d, $NR^cC(O)OR^d$, $NR^cC(O)NR^cR^d$, $NR^cSO_2R^d$, COR^c, $C(O)OR^c$, or $C(O)NR^cR^d$;

n is 0, 1, 2, 3, 4, 5, 6, or 7;

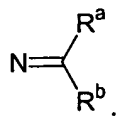
X is O, S, S(O), $S(O_2)$, or NR^c;

Y is a covalent bond, CH_2, C(O), C=N-R^c, C=N-OR^c, C=N-SR^c, O, S, S(O), $S(O_2)$, or NR^c;

Z is N or CH; and

W is O, S, S(O), $S(O_2)$, NR^c, or $NC(O)R^c$;

in which each of R^a and R^b, independently, is H, alkyl, aryl, heteroaryl; and each of R^c and R^d, independently, is H, alkyl, or alkylcarbonyl; or a pharmaceutically acceptable salt thereof; and a pharmaceutically acceptable carrier.

56. (Previously presented) The pharmaceutical composition of claim 55, wherein R_1 is  .

57. (Previously presented) The pharmaceutical composition of claim 56, wherein W is O.

58. (Previously presented) The pharmaceutical composition of claim 57, wherein R_5 is H or alkyl.

59. (Previously presented) The pharmaceutical composition of claim 56, wherein X is NR^c.

60. (Previously presented) The pharmaceutical composition of claim 59, wherein R^c is H, methyl, ethyl, or acetyl.

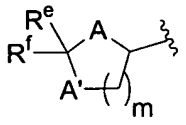
61. (Previously presented) The pharmaceutical composition of claim 56, wherein Y is O or CH_2, and n is 0, 1, 2, 3, or 4.

62. (Previously presented) The pharmaceutical composition of claim 61, wherein R_3 is aryl or heteroaryl.

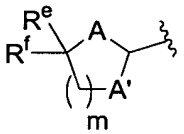
63. (Previously presented) The pharmaceutical composition of claim 62, wherein R_3 is pyridinyl.

64. (Previously presented) The pharmaceutical composition of claim 61, wherein R_3 is OR^c, SR^c, $C(O)OR^c$, or $C(O)NR^cR^d$.

65. (Previously presented) The pharmaceutical composition of claim 61, wherein R_3 is



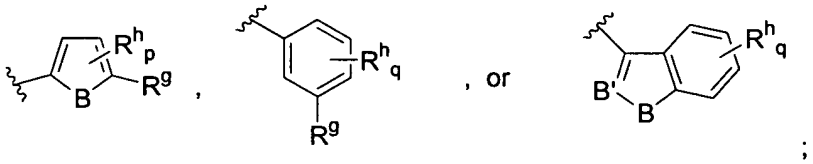
or



in which each of A and A', independently, is O, S, or NH;
each of R^e and R^f, independently is H, alkyl, aryl, or heteroaryl; and

m is 1 or 2.

66. (Previously presented) The pharmaceutical composition of claim 56, wherein one of R^a and R^b is



in which

B is NR^i, O, or S;

B' is N or CR^i;

R^g is H, alkyl, or alkoxyl;

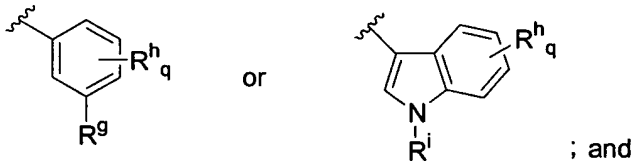
R^h is halogen, CN, hydroxyl, alkyl, aryl, heteroaryl, alkoxyl, aryloxyl, or heteroaryloxyl;

R^i is H, alkyl, or alkylcarbonyl;

p is 0, 1, or 2; and

q is 0, 1,2, 3,or 4.

67. (Previously presented) The pharmaceutical composition of claim 66, wherein one of R^a and R^b is



the other of R^a and R^b is alkyl.

68. (Previously presented) The pharmaceutical composition of claim 67, wherein R^g is H, methyl, ethyl, methoxy, or ethoxy; R^h is F, Cl, CN, methoxy, methyl, or ethoxy; R^i is H, methyl, ethyl, or acetyl, and q is 0, 1, or 2.

69. (Previously presented) The pharmaceutical composition of claim 68, wherein R^g is methyl or methoxy; R^i is H; and q is 0.

70. (Previously presented) The pharmaceutical composition of claim 68, wherein W is O; and R_5 is H or alkyl.

71. (Previously presented) The pharmaceutical composition of claim 70, wherein X is NR^c; and R^c is H, methyl, ethyl, or acetyl.

72. (Previously presented) The pharmaceutical composition of claim 71, wherein Y is O or CH_2; and n is 0, 1, 2, 3, or 4.

73. (Previously presented) The pharmaceutical composition of claim 72, wherein R_3 is aryl or heteroaryl.

74. (Previously presented) The pharmaceutical composition of claim 73, wherein R_3 is pyridinyl.

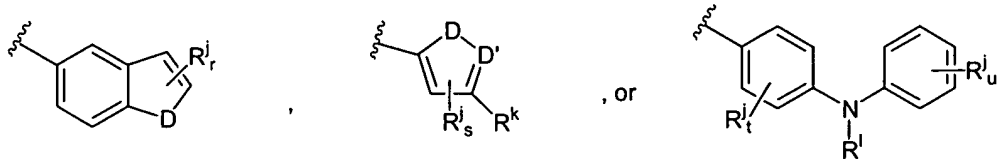
75. (Previously presented) The pharmaceutical composition of claim 68, wherein Y is O or CH_2, and n is 0, 1, 2, 3, or 4.

76. (Previously presented) The pharmaceutical composition of claim 75, wherein R_3 is aryl or heteroaryl.

77. (Previously presented) The pharmaceutical composition of claim 76, wherein R_3 is pyridinyl.

78. (Previously presented) The pharmaceutical composition of claim 55, wherein R_1 is aryl or heteroaryl.

79. (Previously presented) The pharmaceutical composition of claim 77, wherein R_1 is



, or

in which D is O, S, or NR^m;

D' is N or CR^m;

R^j is halogen, CN, hydroxyl, alkyl, aryl, heteroaryl, alkoxyl, aryloxyl, or heteroaryloxyl;

R^k is aryl or heteroaryl;

R^l is H, alkyl, or alkylcarbonyl;

R^m is H, alkyl, or alkylcarbonyl;

r is 0, 1, or 2;

s is 0 or 1;

t is 0, 1, 2, 3, or 4; and

u is 0, 1, 2, 3, 4, or 5.

80. (Previously presented) The pharmaceutical composition of claim 79, wherein X is NR^c; and R^c is H, methyl, ethyl, or acetyl.

81. (Previously presented) The pharmaceutical composition of claim 80, wherein W is O; and R_5 is H or alkyl.

82. (Previously presented) The pharmaceutical composition of claim 81, wherein Y is O or CH_2; and n is 0, 1, 2, 3, or 4.

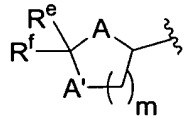
83. (Previously presented) The pharmaceutical composition of claim 79, wherein Y is O or CH_2; and n is 0, 1, 2, 3, or 4.

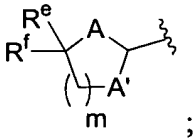
84. (Previously presented) The pharmaceutical composition of claim 83, wherein R_3 is aryl or heteroaryl.

85. (Previously presented) The pharmaceutical composition of claim 84, wherein R_3 is pyridinyl.

86. (Previously presented) The pharmaceutical composition of claim 83, wherein R_3 is OR^c, SR^c, $C(O)OR^c$ or $C(O)NR^cR^d$.

87. (Previously presented) The pharmaceutical composition of claim 83, wherein R_3 is



or


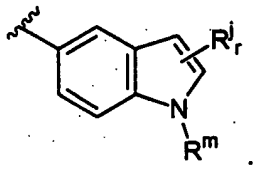
;

in which each of A and A', independently, is O, S, or NH;

each of R^e and R^f, independently is H, alkyl, aryl, or heteroaryl; and

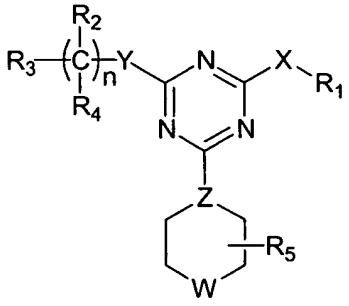
m is 1 or 2.

88. (Previously presented) The pharmaceutical composition of claim 83, wherein R_1 is



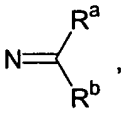
89. (Previously presented) The pharmaceutical composition of claim 88, wherein R^j is methyl, ethyl, propyl, or benzyl; and r is 1 or 2.

90. (Currently amended) The pharmaceutical composition comprising the compound of formula (I):



(I),

wherein

R_1 is  , aryl, or heteroaryl;

each of R_2, R_4, and R_5, independently, is R^c, halogen, nitro, nitroso, cyano, azide, isothionitro, SR^c, or OR^c;

R_3 is R^c, alkenyl, alkynyl, aryl, heteroaryl, cyclyl, heterocyclyl, OR^c, $OC(O)R^c$, SO_2R^c, $S(O_2)R^c$, $S(O_2)NR^cR^d$, SR^c, NR^cR^d, NR^cCOR^d, $NR^cC(O)OR^d$, $NR^cC(O)NR^cR^d$, $NR^cSO_2R^d$, COR^c, $C(O)OR^c$, or $C(O)NR^cR^d$;

n is 0, 1, 2, 3, 4, 5, 6, or 7;

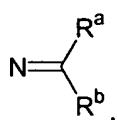
X is O, S, S(O), $S(O_2)$, or NR^c;

Y is a covalent bond, CH_2, C(O), C=N-R^c, C=N-OR^c, C=N-SR^c, O, S, S(O), $S(O_2)$, or NR^c;

Z is CH; and

W is O, S, S(O), $S(O_2)$, NR^c, or $NC(O)R^c$;

in which each of R^a and R^b, independently, is H, alkyl, aryl, heteroaryl; and each of R^c and R^d, independently, is H, alkyl, or alkylcarbonyl; or a pharmaceutically acceptable salt thereof; and a pharmaceutically acceptable carrier.

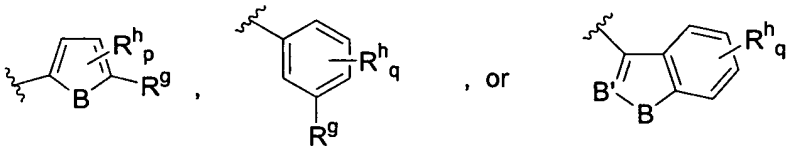
91. (Previously presented) The pharmaceutical composition of claim 90, wherein R_1 is  .

92. (Previously presented) The pharmaceutical composition of claim 91, wherein W is O; and R_5 is H or alkyl.

93. (Previously presented) The pharmaceutical composition of claim 91, wherein X is NR^c; and R^c is H, methyl, ethyl, or acetyl.

94. (Previously presented) The pharmaceutical composition of claim 91, wherein Y is O or CH_2, and n is 0, 1, 2, 3, or 4.

95. (Previously presented) The pharmaceutical composition of claim 91, wherein one of R^a and R^b is



in which B is NR^i, O, or S;

B' is N, CH, or CR^i;

R^g is H, alkyl, or alkoxyl;

R^h is halogen, CN, hydroxyl, alkyl, aryl, heteroaryl, alkoxyl, aryloxyl, or heteroaryloxyl;

R^i is H, alkyl, or alkylcarbonyl;

p is 0, 1, or 2; and

q is 0, 1,2, 3,or 4.

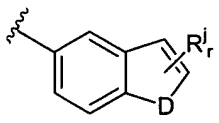
96. (Previously presented) The pharmaceutical composition of claim 90, wherein R_1 is aryl or heteroaryl.

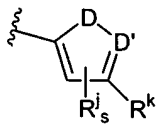
97. (Previously presented) The pharmaceutical composition of claim 96, wherein W is O; and R_5 is H or alkyl.

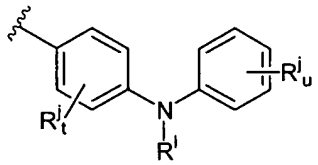
98. (Previously presented) The pharmaceutical composition of claim 96, wherein X is NR^c; and R^c is H, methyl, ethyl, or acetyl.

99. (Previously presented) The pharmaceutical composition of claim 96, wherein Y is O or CH_2; and n is 0, 1, 2, 3, or 4.

100. (Previously presented) The pharmaceutical composition of claim 96, wherein R_1 is



,


, or


in which D is O, S, or NR^m;

D' is N or CR^m;

R^j is halogen, CN, hydroxyl, alkyl, aryl, heteroaryl, alkoxyl, aryloxyl, or heteroaryloxyl;

R^k is aryl or heteroaryl;

R^l is H, alkyl, or alkylcarbonyl;

R^m is H, alkyl, or alkylcarbonyl;

r is 0, 1, or 2;

s is 0 or 1;

t is 0, 1, 2, 3, or 4; and

u is 0, 1, 2, 3, 4, or 5.